



Indian School Al Wadi Al Kabir

Post Midterm Examination (2024-2025)

Class: VII

Sub: Science

Max. Marks: 30

Date: 05/12/2024

Set - I

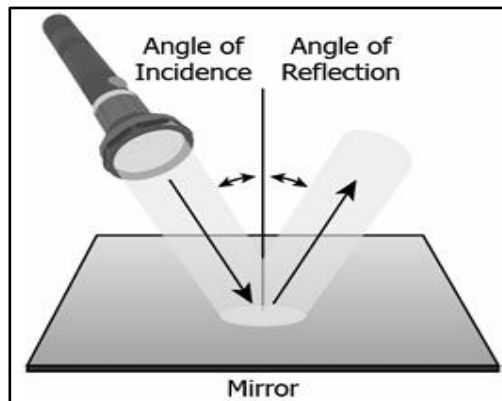
Time: 1 hour

General Instructions:

- All questions are compulsory. Marks are indicated against each section.
- The question paper comprises 4 **pages** and **15** questions in 5 sections A, B, C, D and E.
- Q 1 to Q 4 in **section A** -MCQ carries **ONE** mark each. Write the correct answer along with the option in the answer script.
- Q 5 to Q 7 in **section A** -Assertion and Reason carry **ONE** mark each.
- Q 8 to Q 10 in **section B** are Short Answer Type Questions and carry **TWO** marks each.
- Q 11 TO Q 13 in **section C** are Short Answer Type Questions and carry **THREE** marks each.
- Q 14 in **section D** is a Long Answer Type Question and carries **FIVE** marks.
- Q 15 in **section E** is a Case study/Paragraph Question and carries **THREE** marks.
- Write the same question number as given in the question paper.
- Whitener should not be used in the answer script.
- Diagrams should be drawn using a pencil.

SECTION - A (7X1=7)

1. Aabha switched on a torch light and pointed it towards a mirror. She calculated the angle of incidence and found it to be **50°**.



What is the angle of reflection?

- | | |
|--------|---------|
| a) 25° | b) 45° |
| c) 50° | d) 100° |
2. Which of the following is used by an E.N.T. doctor?
- Concave mirror
 - Convex mirror
 - Plane mirror
 - Concave lens

3. An alloy that does not rust and is made by mixing iron with carbon and metals like chromium, nickel and manganese is -
- a) Zinc
 - b) Tin
 - c) Gold
 - d) Stainless steel
4. A student collects wax from a burning candle. He melts it and then adds a new wick to it and leaves it to cool. Can a new and functional candle be created by this process? Why or why not?
- a) No; it is a physical change that cannot be reversed.
 - b) Yes; it is a reversible physical change in state of wax.
 - c) No; it is an irreversible chemical change with the formation of a new substance.
 - d) Yes; it is a chemical change causing the wax to change from one state to another.

For the following questions, two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (i), (ii), (iii), and (iv) as given below.

- (i) Both A and R are true and R is the correct explanation of the assertion.**
- (ii) Both A and R are true but R is not the correct explanation of the assertion.**
- (iii) A is true but R is false.**
- (iv) A is false but R is true.**

5. **Assertion (A):** The ray of light that falls on the surface of the reflecting material or mirror is the incident ray.

Reason (R): The splitting up of white light into seven colours on passing through a glass prism is called dispersion of light.

6. **Assertion(A):** When the object is placed very close to the convex lens, the image formed is virtual, erect, and magnified.

Reason(R): Concave mirrors can form real and inverted images when the object is placed very close.

7. **Assertion (A):** Freezing is the process in which water turns to ice at 100°C .

Reason (R): Freezing of water is a physical change because only the physical state of water is changed.

SECTION - B (3X2=6)

8. a) Why do we see white colour in Newton's disc when we rotate it very fast?
b) Mention any **two** uses of convex mirror.
9. a) Give **one**-point of difference between concave and convex lens.
b) How are rainbows formed?

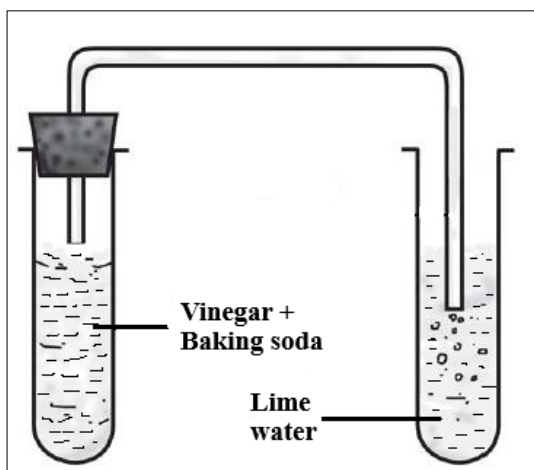
10. Photosynthesis and digestion of food are chemical changes. Justify your answer.

SECTION - C (3X3=9)

11. a) Draw diagrams to distinguish between concave mirror and convex mirror.
b) What is the difference between real and virtual image?
c) An image of an object is observed on a plane mirror. The distance between the mirror and the image is 15 cm. If the object is moved 9 cm towards the mirror, then what would be the distance between image and object?
12. a) “Chemical changes are very important in our life.” Give **two** examples to support it.
b) When magnesium is burned in air, a powdery substance **A** is formed. **A** on dissolving in water forms **B**.
i) What **conclusion** do you derive when magnesium is burnt in air?
ii) What is the action of **B** on litmus paper and what do you **conclude** about the nature of **B** from its action on litmus paper?
13. a) How does the ozone layer act as a protective shield?
b) A clean **iron nail** is left in a solution of **copper sulphate** for an hour.
i) What changes will you observe in the copper sulphate solution and **why**?
ii) Write the **word** equation.

SECTION - D (1X5=5)

14. a) What do you mean by crystallisation?
b) What is rusting? Painting an iron gate prevents it from rusting. Explain.
c) Observe the given activity and answer the questions.



- i) Which characteristics of chemical change is observed when vinegar is mixed with baking soda?
- ii) Why does lime water turn milky after some time? Write the **word equation** for it.

SECTION - E (1X3=3)

15. Mirror is a reflecting surface made of glass, which is coated from one side with metals such as gold, silver or mercury. A mirror changes the direction of light that falls on it. The bouncing back of light with the change in direction is called reflection of light. When we stand in front of the mirror, we are able to see our image. Our image in a mirror is of the same size as we are and at the same distance from the mirror where we are standing. However, the image formed in a mirror is laterally inverted. A mirror forms an image such that its left side is object's right side and its right side is object's left side. The property of lateral inversion of the image in a plane mirror is applied in writing the word 'AMBULANCE' on vehicles that carry patients to hospitals. This is done so that the driver in the other vehicles ahead of the ambulance can see the word 'AMBULANCE' clearly in the rear-view mirror and give way to the ambulance immediately.

- i) Explain the term lateral inversion.
- ii) What do you mean by reflection of light?
- iii) The word 'AMBULANCE' on an ambulance is written in mirror writing. Why is it written in this way?